

REMARKS

The Office Action of October 2, 2002 has been received and its contents carefully noted.

The present Amendment revises independent claims 1, 14, and 15 so that they specify transmission of "a signal including" first data and second data. Similarly, the Amendment revises independent claim 5 to specify reception of such a signal.

Furthermore, the present Amendment revises all of the independent claims with regard to the manner in which the transmission power control is recited. The purpose in revision is to broaden this aspect of the claim by making it clear that only one of the first and second transmission powers needs to be controlled. *in this later*

The present Amendment also makes other revisions in the claims to improve their form under US claim drafting practice. These revisions include changes to claims 2-4 so as to avoid the absence of antecedent basis that is noted in the Office Action. Accordingly, the rejection of these claims indefiniteness should be withdrawn.

The Office Action rejects all of the independent claims (*inter alia*) for anticipation by Patent 6,118,983 to Egusa et al (hereafter simply "Egusa"). For the reasons discussed below, however, it is respectfully submitted that the inventions defined by the independent claims are neither anticipated by Egusa nor rendered obvious by the reference.

Egusa's Figure 2 shows a base station transceiver 70 having an encoder 71 for encoding an input digital signal sequence, a mixer 75 for mixing the signal sequence, and a variable gain transmission amplifier 77 for amplifying the power of the encoded and mixed signal sequence. A passage in the reference (beginning at the last line in column 6 and continuing to line 25 in column 7) teaches that Egusa's reception quality information is representative of the reception quality of "the radio signal" which is received by a mobile station (see, in particular, the sentence at column 7 of the reference, lines 3-6), and this reception quality information is conveyed from Egusa's decoder 89 to his transmission power controller 76 as part of a power measurement message. Egusa's transmission power controller 76 evaluates the reception quality in the forward channel. On the basis of this evaluation, Egusa's transmission power controller 76 controls the variable gain amplifier

77, which amplifies the mixed and encoded signal sequence.

According to the teachings of Egusa, power amplification based on Egusa's reception quality information merely extends to Egusa's encoded and mixed signal sequence. The reference neither discloses nor suggests power amplification of a signal having first data and second data, with the power level for the first data and the second data being determined independently. Independent determination of the transmission power levels for the first and second data permits power level control that is more precise than in the Egusa reference, and is not suggested by Egusa.

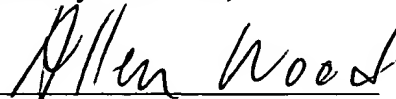
Independent claim 1 provides that first data is transmitted at a first transmission power level and a second data is transmitted at a second transmission power level. Claim 1 then recites "a transmission power controller for receiving transmission power control information from [another] communication station and for controlling one of the first transmission power level and the second transmission power level independently of the other." As was discussed above, this is neither disclosed nor suggested by Egusa.

Independent claims 5, 14, and 15 also provide for setting the transmission power level independently for first data and second data. Accordingly, these claims are patentable over the references for reasons along the lines discussed above with respect to claim 1.

The remaining claims depend from the independent claims, and so are patentable along with them.

For the foregoing reasons, it is respectfully submitted that the application is now in condition for allowance. Reconsideration of the application is therefore respectfully requested.

Respectfully submitted,



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AMENDMENT

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ATTACHMENT -- CLAIM CHANGES

This attachment includes claims that are being rewritten in the present Amendment, with brackets being used to identify deletions from the previous version of the rewritten claims and with underlining being used to identify additions to the previous version.

1. (Amended) A communication station for transmitting first data and second data, comprising:

an encoder for coding the first data and the second data;

a multiplexer for multiplexing the coded first data and the coded second data;

a transmitter for transmitting a signal including the first data and the second data that are multiplexed with each other to another communication station, the first data and the second data being transmitted at a first transmission power level and a second transmission power level, respectively; and

a transmission power controller for receiving transmission power control information from the other communication station and for controlling one of the first transmission power level and the second transmission power level independently of [each] the other.

2. (Amended) A communication station according to claim 1, wherein the transmission power control information includes first and second control bits, and

wherein [the gain controller changes] both a first gain for the first data and a second gain for the second data are changed based on the first control bit, and [changes] either the first gain or the second gain is changed based on the second control bit.

3. (Amended) A communication station according to claim 2, wherein [the gain controller changes] both the first gain and the second gain are changed by a first value and [changes] either the first gain or the second gain is changed by a second value, the first value being larger than the second value.

5. (Amended) A communication station for receiving first data and second data transmitted from another communication station, the first data and the second data being transmitted at a first transmission power level and a second transmission power level, respectively, the communication station comprising:

a receiver for receiving a signal including the first data and the second data;

a processor for decoding the first data and the second data;

a control information generator for generating transmission power control information based on the first data and the second data received by the receiver, the transmission power control information causing [to] control of one of the first transmission power level and the second transmission power level independently of [each] the other;
and

a transmitter for transmitting the transmission power control information to the other communication station.

6. (Amended) A communication station according to claim 5, wherein the transmission control information is generated in such a manner as to reduce a difference between a first difference between a required received quality and an actual received quality of the first data and a second difference between a required received quality and an actual received quality of the second data.

14. (Amended) A communication station for transmitting first data and second data on a reverse-link and for receiving third data and fourth data on a forward-link in response to the first data and the second data, the communication station comprising:

a coder for coding the first data and the second data;

a multiplexer for multiplexing the coded first data and the coded second data;

a transmitter for transmitting a signal including the first data and the second data that are multiplexed with each other to another communication station, the first data

and the second data being transmitted at a first transmission power level and a second transmission power level, respectively;

a receiver for receiving the third data and the fourth data;

a processor for separating transmission power control information from the third data and the fourth data;

a transmission power controller for controlling one of the first transmission power level and the second transmission power level independently of [each] the other, based on the separated transmission power control information; and

a control information generator for generating further transmission power control information based on reception states of the third data and the fourth data, the further transmission power control information causing [to] control of one of the third transmission power level and the fourth transmission power level independently of [each] the other, wherein the further transmission power control information is transmitted together with the first data and the second data.

15. (Amended) A communication system comprising:

a first communication station for transmitting a signal including first data and second data at a first transmission power level and a second transmission power level, respectively; and

a second communication station for receiving the first data and the second data transmitted from the first communication station, wherein:

the second communication station generates transmission power control information based on the received first and second data, and transmits the generated transmission power control information to the first communication station, and

the first communication station receives the transmission power control information from the second communication station, and controls one of the first transmission power level and the second transmission power level independently of [each] the other based on the transmission power control information.

35. (Amended) A communication system according to claim 34, wherein the further transmission control information is generated in such a manner as to reduce a difference between a third difference between a required received quality and an actual received quality of the third data and a fourth difference between a required received quality and an actual received quality of the fourth data.